Transcend®

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Embedded Solutions

SATA III M.2 SSDs

MTS970A

Transcend's MTS970A M.2 SSD is a self-encrypting drive (SED) that complies with the TCG (Trusted Computing Group) Opal 2.0 standards. Data is protected using hardware-based AES 256-bit encryption and LBA (Logical Block Address) sector-specific permissions.

Transcend's MTS970A M.2 SSD features a SATA III 6Gb/s interface and 112-layer 3D NAND flash, delivering breakthrough density that greatly improves storage efficiency. Its built-in DRAM cache enables fast random read and write speeds, and improves drive endurance. In addition, the 30μ" gold finger PCB, Corner Bond technology, and anti-sulfur resistors guarantee its reliability in harsh conditions. Transcend's MTS970A is also 100% chamber tested in-house for extended operating temperatures of -20℃~75℃.

Hardware Features

- Compliant with RoHS 2.0 standards
- DDR3 DRAM Cache embedded
- Anti-sulfur technology implemented to prevent sulfurization in the environment
- 30μ" PCB gold finger
- Key components fortified by default with Corner Bond technology
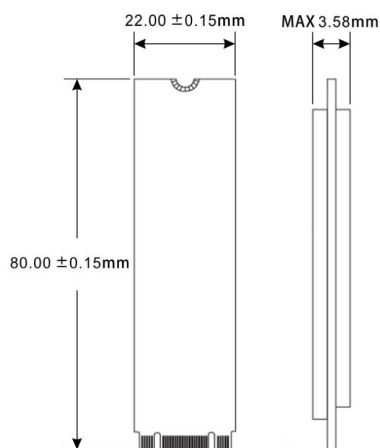
Firmware Features

- Supports S.M.A.R.T. function to conduct health monitoring, analysis, and reporting for storage devices
- Advanced Global Wear-Leveling and Block management for reliability
- Built-in LDPC ECC (Error Correction Code) functionality
- Dynamic thermal throttling
- Compliant with TCG Opal specifications and IEEE 1667 standards

*Supports Microsoft® eDrive standard

Ordering Information

128GB	TS128GMTS970A
256GB	TS256GMTS970A
512GB	TS512GMTS970A
1TB	TS1TMTS970A
2TB	TS2TMTS970A
4TB	TS4TMTS970A

Specifications

Appearance	Dimensions	80.0 mm x 22.0 mm x 3.58 mm (3.15" x 0.87" x 0.14")
	Weight	9 g (0.32 oz)
	M.2 Type	2280-D2-B-M (Double-sided)
	Form Factor	M.2 2280
Interface	Bus Interface	SATA III 6Gb/s
Storage	Capacity	128 GB / 256 GB / 512 GB / 1 TB / 2 TB / 4 TB
	Flash Type	112-layer 3D NAND flash
Operating Environment	Operating Voltage	3.3V±5%
	Operating Temperature	Extended Temp. -20°C (-4°F) ~ 75°C (167°F)
	Storage Temperature	-55°C (-67°F) ~ 85°C (185°F)
	Humidity	5% ~ 95%
	Shock	1500 G, 0.5 ms, 3 axis
	Vibration (Operating)	20 G (peak-to-peak), 7 Hz ~ 2000 Hz (frequency)
Power	Power Consumption (Operation)	3.1 watt(s)
	Power Consumption (Sleep)	1.1 watt(s)
Performance	Sequential Read/Write (CrystalDiskMark)	Read: up to 560 MB/s Write: up to 475 MB/s
	4K Random Read/Write (IOmeter)	Read: up to 70,000 IOPS Write: up to 83,000 IOPS
	Mean Time Between Failures (MTBF)	3,000,000 hour(s)
	Terabytes Written (TBW)	up to 514 TBW
	Drive Writes Per Day (DWPD)	1.85 (3 yrs)
Warranty	Certificate	CE / FCC / BSMI / UKCA
	Warranty	Three-year Limited Warranty

Mechanical Dimensions

Product specifications are subject to change without notice. Pictures shown may differ from actual products. Total accessible capacity varies depending on operating environment. Due to the complexity and variety of industrial applications, Transcend cannot guarantee 100% compatibility with all platforms and under all scenarios. For special applications and environments, it is strongly suggested that you contact Transcend beforehand for clarification.

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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